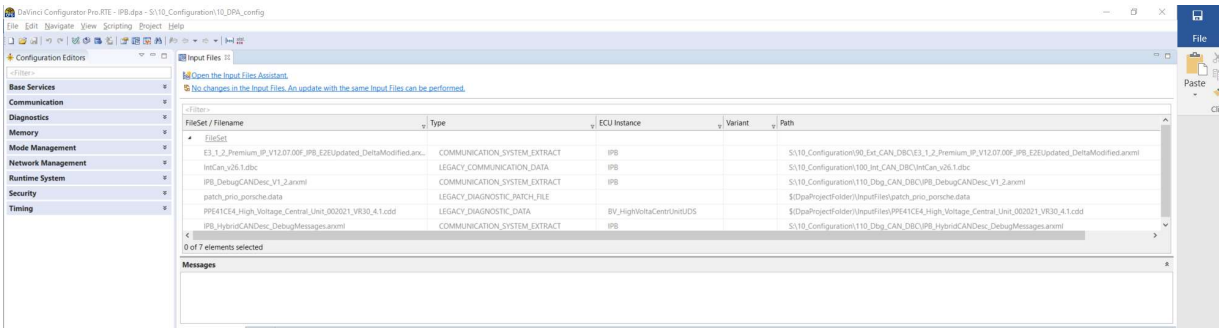
CDD Integration Summary

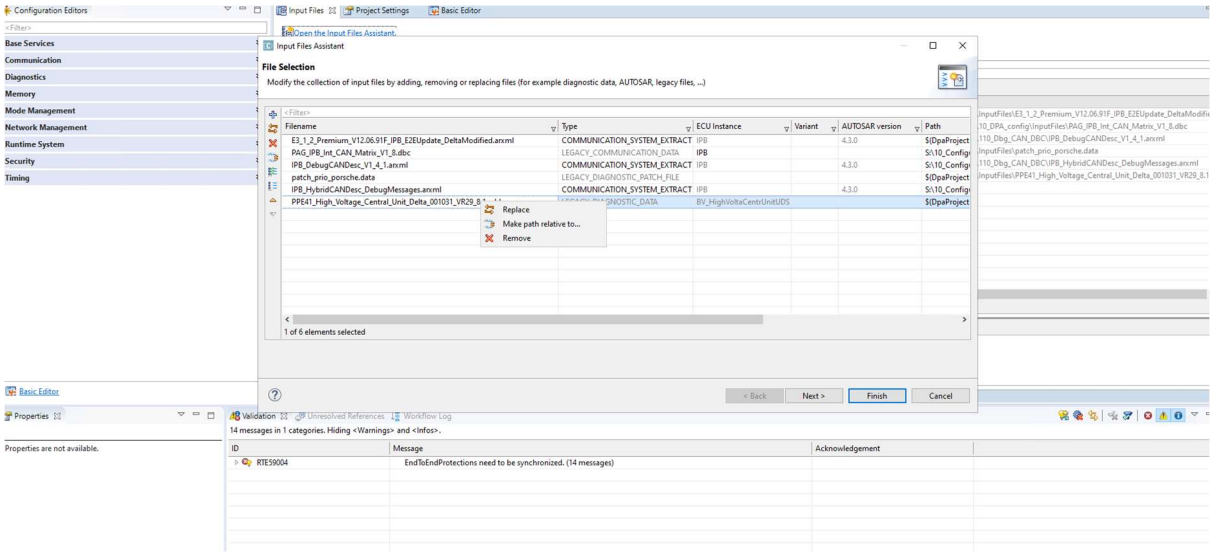
Summarized Steps for CDD Integration

1. Copy the new CDD file to S:\10_Configuration\10_DPA_config\InputFiles

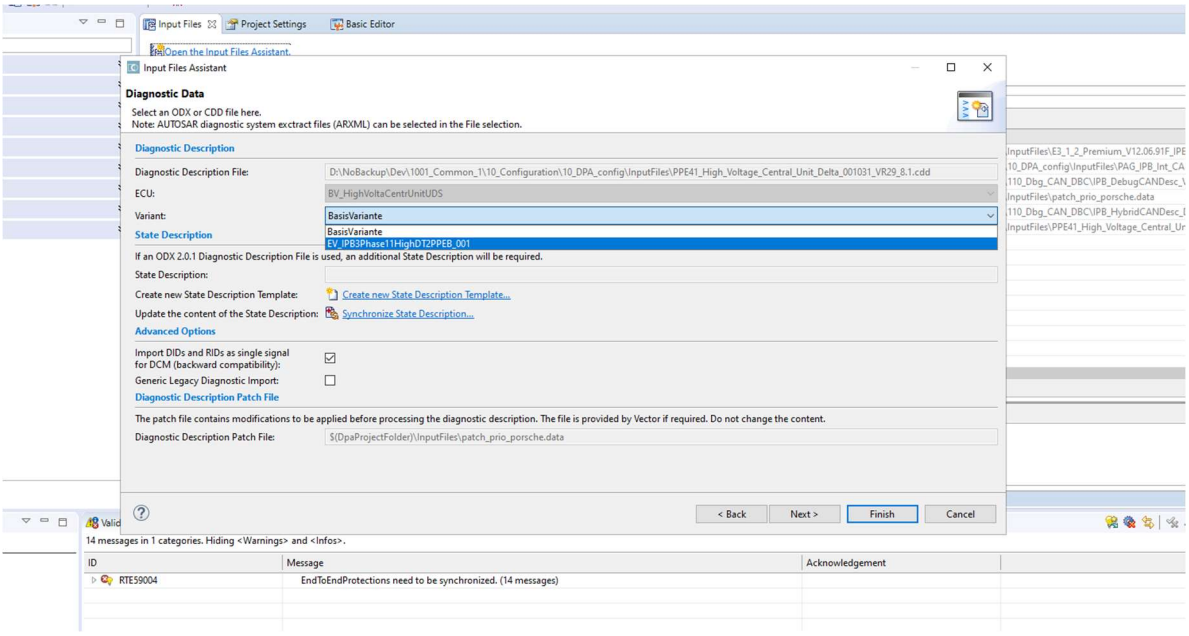
2. Open configurator, click Projects → Input Files. In the window, click “open the Input Files Assistant”



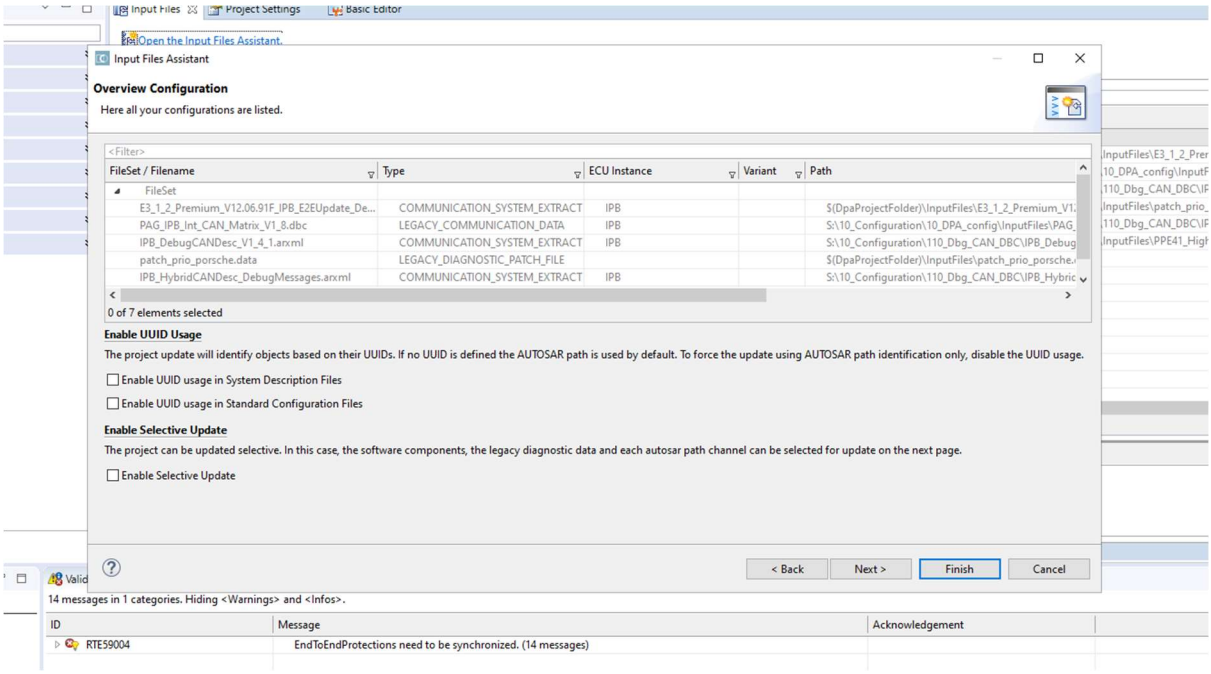
3. Replace the old CDD with the new one.



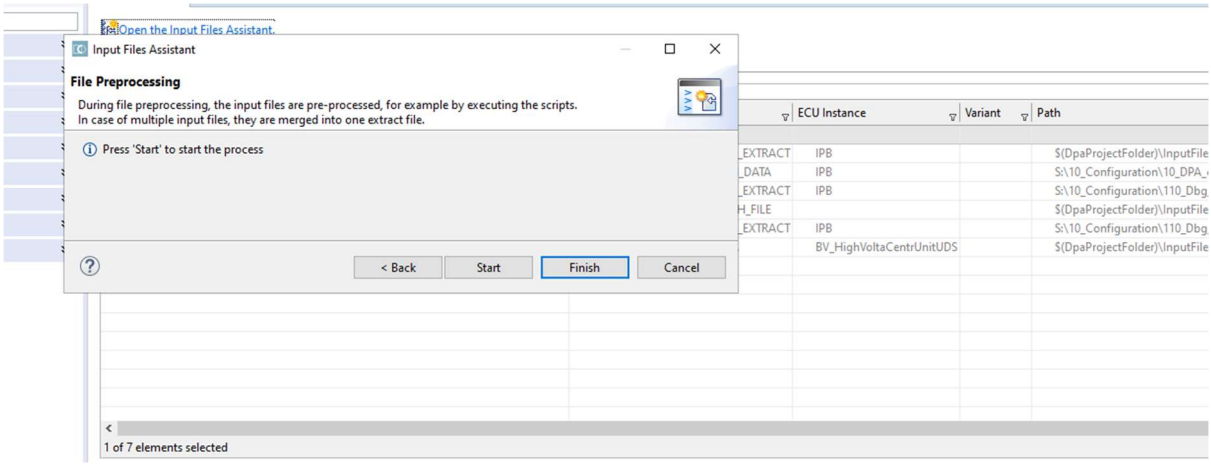
4. Select the proper variant, usually the other one than BasisVariante. Also enable “Import DIDs and RIDs as single signal” under the Advanced options.



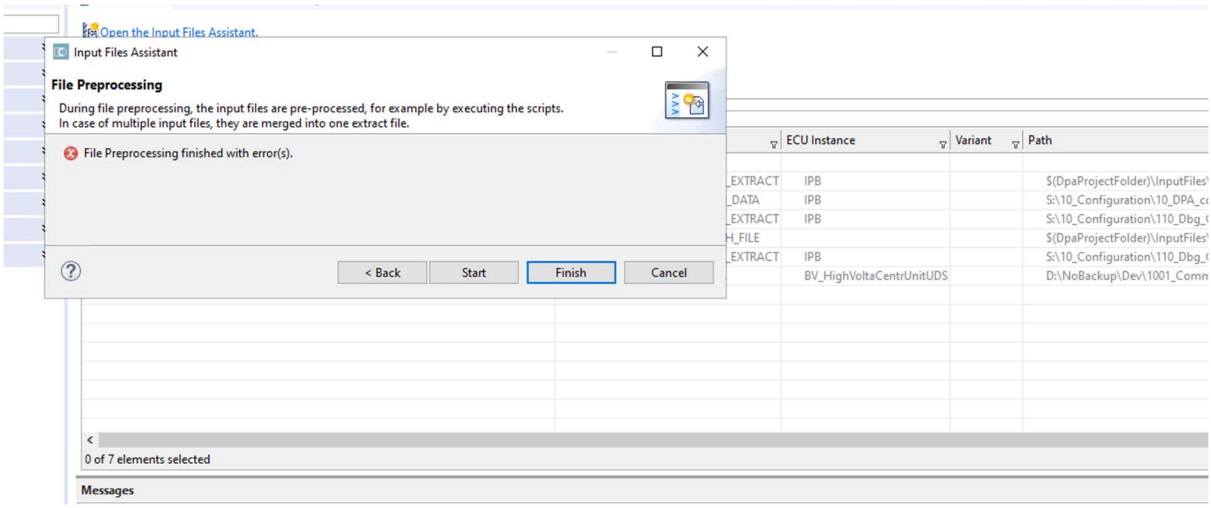
5. Click next. Nothing to be done in this step.



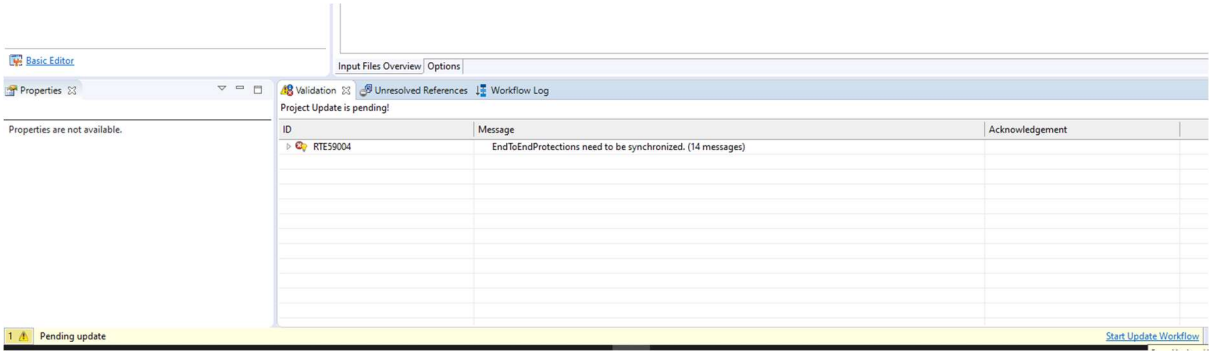
6.Click Next and select start in the next window.



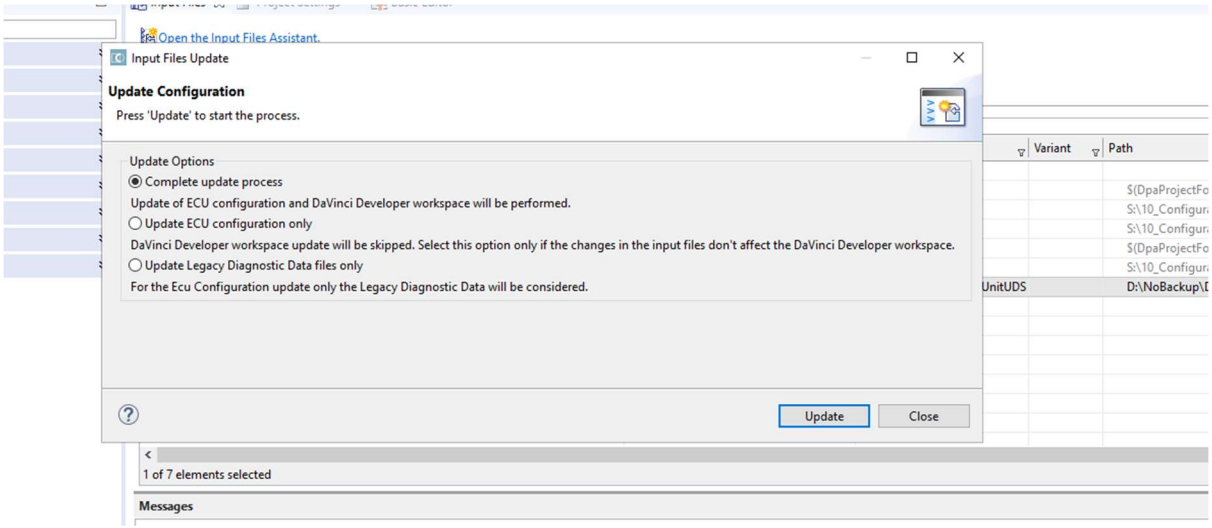
7. This will process for few minutes and shows the message “Finished with errors”. Click on Finish.



8. Now click on “Start Update Workflow” at the bottom.



9. Select “Complete Update Process” and click on update.



10. This will take nearly 10 minutes and will finish on its own. Afterwards, go to the validation tab at the lower half and select “only show errors, not warnings/suggestions” (at top right of window).

11. The list of all validation errors faced so far and their resolutions are given below:

	Validation Errors in Davinci Configurator				
Sl. No.	**ID**	**Message**	**Description (Example Case)**	**Number of Errors**	**Resolution**
1	Cfg00024	Missing reference target	The target of reference DemFreezeFrameClassRef(value=FreezeFrameClass_FreezeFrame_66de3a66) is missing.	4	The error can be resolved either by removing the unwanted DTC (as per the CDD) or by selecting the appropriate DemFreezeFramClassRef.
2	Cfg00024	Missing reference target	The target of reference SokFmDemSignatureCreationFailedRef(value=DTC_0x000017) is missing.	1	The missing DTC containers need to added under the DemDTCClass and DemEventparameters.

3	RTE5 1017	Port prototype inconsistent	ComponentPort 'S_DataServices_Data_DiagnServi_TABROW_NeuMeasu_Read_4' is not valid: - Unresolved port interface reference '/MICROSAR/Dcm_swc/Interfaces/DataServices_Data_DiagnServi_TABROW_NeuMeasu_Read_4' for PPort prototype 'S_DataServices_Data_DiagnServi_TABROW_NeuMeasu_Read_4' of component type 'appldiag'.	143	These port interfaces are not required as per the CDD and hence they (along with the runnables) have to removed in the DaVinci Developer. This resolves the issue.
4	RTE5 3023	Data Mapping inconsistent	Signal '/Signal/SG_KS_HVZB_Challenge_M' is mapped to communication elements 'KS_Slave.SlaveComChallengeM.challengeM' and 'ECU Composition.RP_IF_SG_KS_HVZB_Challenge_M_XIX_IPB.DE_SG_KS_HVZB_Challenge_M', but their data types '/KS_GEN3/DataTypes/DT_Ks_ChallengeResponseMessage' and '/RecDataType/AT_SG_KS_HVZB_Challenge_M' are incompatible.	30	The resolution is done using the 'Data Mapping' tool in the DaVinci Developer (Signal View Mode). Unmap the signal groups with multiple mapping and remap them using the correct DEP/Trigger. In some cases of wrong signal mapping, they need to corrected as per the old DPA file.
5	RTE5 4000	Connector prototype inconsistent	Connector 'appldiag_S_DataServices_Data_DiagnServi_TABROW_HistoDuratTempeSacPhase3Read_3_Dcm_DataServices_Data_DiagnServi_TABROW_Histo' is not valid: - Unresolved port prototype reference '/MICROSAR/Dcm_swc/ComponentTypes/Dcm/DataServices_Data_DiagnServi_TABROW_HistoDuratTempeSacPhase3Read_3' in Assembly connector 'appldiag_S_DataServices_Data_DiagnServi_TABROW_HistoDuratTempeSacPhase3Read_3_Dcm_DataSe Remove inconsistent connector appldiag_S_DataServices_Data_DiagnServi_TABROW_HistoDuratTempeSacPhase3Read_3_Dcm_DataServices_Data_DiagnServi_TABROW_Histo.	145	Should be resolved using the solution provided by the DaVinci Configurator. (Removing inconsistent connector)

12. Once all the errors are resolved. Go to Project → Project Settings. Then in the window, go to “SWC Templates and Contract Headers”. Select appldiag and click on generate (blue icon at top middle)

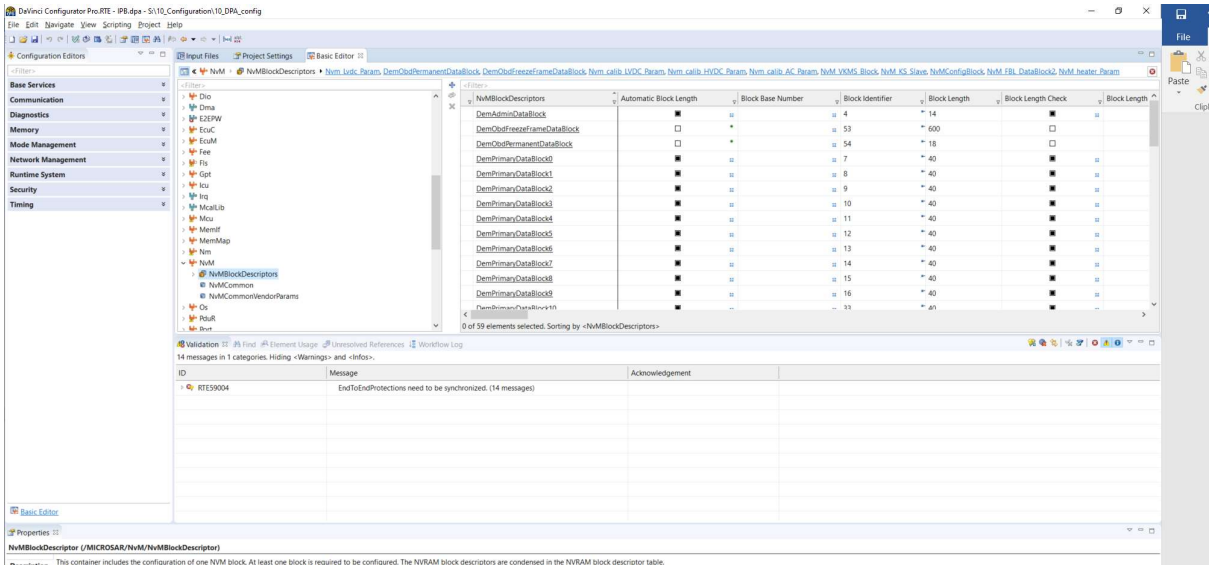
Note: make sure all the errors remain same in the Developer “Check Workspace” before beginning CDD integration and after all the validation error resolution.

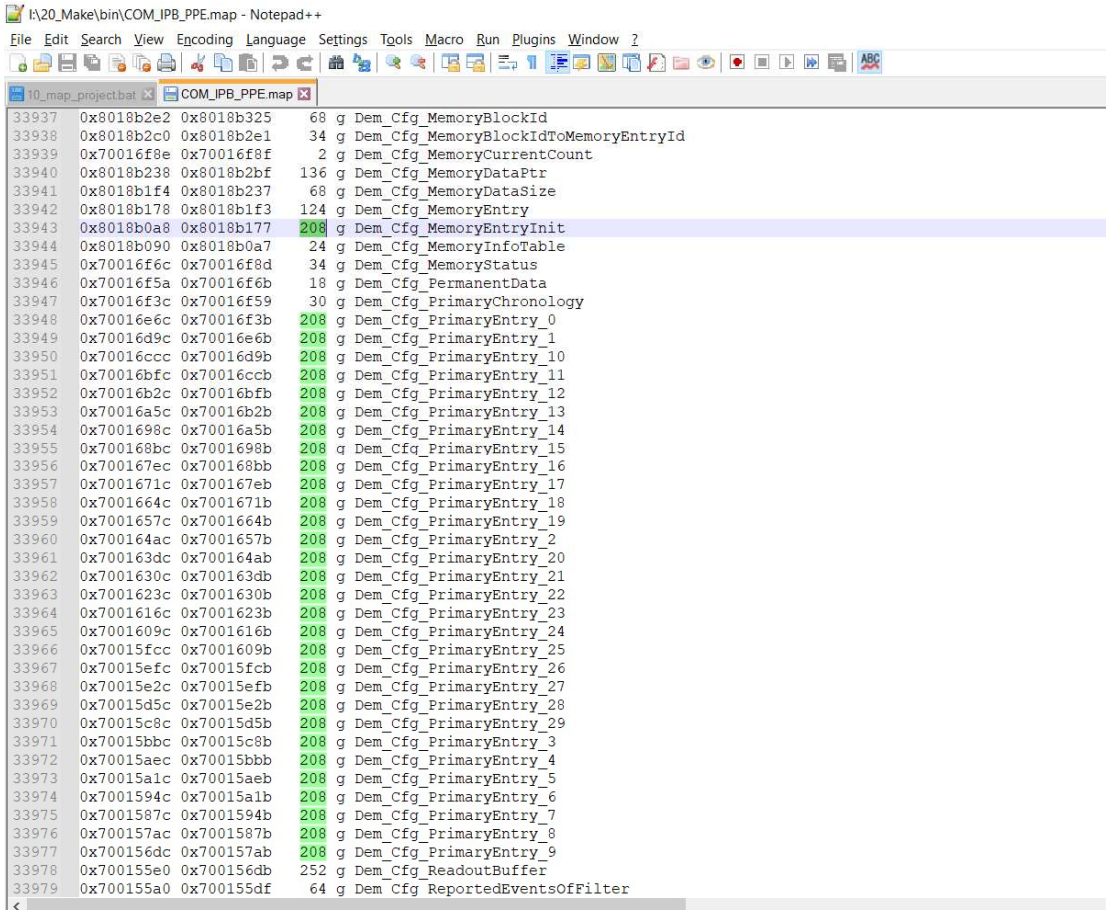
13. Do validation and then generation.

14. Do the ‘m build’. Normally some compilation errors are expected. The errors so far and their resolutions are given below:

Sl.No.	Error	Resolution
1	Undeclared datatype	Revert the unwanted changes in IPB_datatype.arxml
2	Wrong Datatype	Find the datatypes changes in 30_BSW (for example 30_BSW\Rte\Rte_comwrap_qm.h) and correct them in the sender-receiver interface in developer. (mainly).
3	Undeclared DTC	These DTCs are not required as per the CDD. Update 'relevent to Customer' as 'No' in the Demwrap_cfg.xlsx and generate demwrap in the usual way.

15. Once all the compilation errors are fixed. Go to Configurator → Basic Editor → NvM → NvMBlockDescriptors. Here all the Block length for Dem* Blocks need to adjusted as per the S:\20_Make\bin\COM_IPB_PPE.map file.





The block information and their naming in the map file are given below, the grey blocks are not required to be checked.

Block	Size	ppe.map	naming in ppe.map
DemStatusDataBlock	1610	826	Dem_Cfg_StatusData
DemObdFreezeFrameDataBlock	600	600	Dem_Cfg_FreezeFrameData
NVM_appldiag_Dsd_LSGParam	525		
NVM_appldiag_Dsd_MOBGParam	525		
SfdA_CalcConfData	514		
NvM_FBL_DataBlock2	314	314	
NvM_FBL_DataBlock1	300		
NvM_calib_COM_Param	244		
DemPrimaryDataBlock0	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock1	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock2	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock3	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock4	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock5	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock6	208	40	Dem_Cfg_PrimaryEntry_#

DemPrimaryDataBlock7	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock8	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock9	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock10	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock11	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock12	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock13	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock14	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock15	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock16	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock17	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock18	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock19	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock20	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock21	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock22	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock23	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock24	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock25	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock26	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock27	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock28	208	40	Dem_Cfg_PrimaryEntry_#
DemPrimaryDataBlock29	208	40	Dem_Cfg_PrimaryEntry_#
Nvm_Lvdc_Param	200	200	Coding_Lvdc_parameter_block_st
Nvm_calib_LVDC_Param	150	150	Coding_EOL_LVDC_calib_block_st
Nvm_calib_HVDC_Param	150	150	Coding_EOL_HVDC_calib_block_st
Nvm_calib_AC_Param	150	150	Coding_EOL_AC_calib_block_st
NvM_ident_Param	80	80	Coding_ident_parameter_block_st
NvM_Obddiag	70	72	Coding_obddiag_parameter_block_st
NvM_history_Param	60	60	Coding_history_parameter_block_st
NvM_heater_Param	30	30	Coding_heater_parameter_block_st
NvM_ecuext_Param	30	30	Coding_ecuext_parameter_block_st
NvM_cm_Param	30	32	Coding_cm_parameter_block_st
NvM_comwrap_asil_Param	30	30	Coding_comwrap_asil_parameter_block_st
NvM_appldiag_Param	30	30	Coding_appldiag_parameter_block_st
SfdA_PersistentData	30		SfdA_PersistentDataBuffer
SfdA_LogData	19		
DemObdPermanentDataBlock	18	18	Dem_Cfg_PermanentData
NvM_KS_Slave	16		
NvM_CddNpmGen2	15		
DemAdminDataBlock	14	14	Dem_Cfg_AdminData
NvM0x0250	12		
NvM_VKMS_Block	2		
NvMConfigBlock	2		

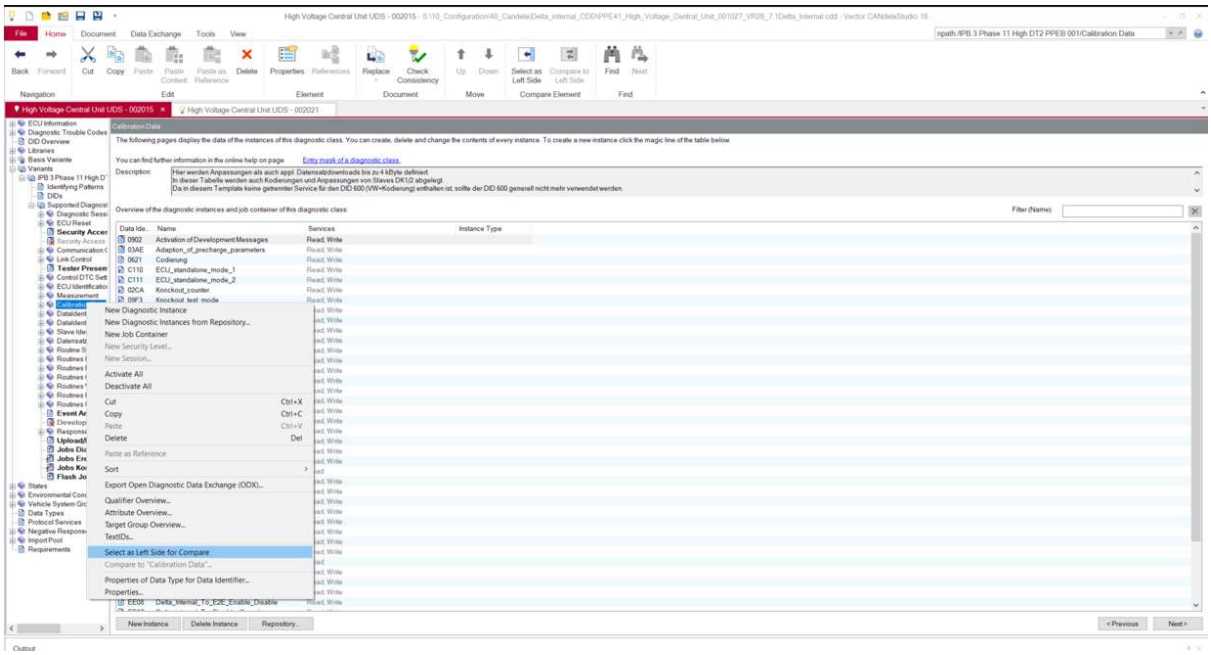
16. After the above change. Do the validation, generation and compilation again.

17. In the appldiag.c code, the ECU Identification DIDs F19E and F1A2 data need to modified as per the new CDD name. (For example F1A2 the version data is 002 and version minor is 021 for PPE41CE4_High_Voltage_Central_Unit_002021_VR30_4.1.cdd)

18. Replace the old CDD file with the new one at S:\10_Configuration\40_Candela

19. The Delta Internal CDD need to created based on the new CDD file. Replace the old delta internal CDD file with the new one at S:\10_Configuration\40_Candela\Delta_internal_CDD.

a. To update the new CDD as delta internal CDD, open both new CDD and the old delta internal cdd. Now go to the calibration DIDs of old Delta internal CDD, right click and select “Select as left side to compare”. Go to same for new CDD , right click and select compare.



b. A new window will open, then select to see “Show Objects only existing on the left side”. This will highlight the Delta Internal DIDs that need to copied to new CDD.

c. Go to transfer mode, select all the DIDs and select transfer. Now all the delta internal DIDs should be present in the new CDD.

d. Save the CDD file after updating the revision history and then rename the CDD as Delta_Internal CDD.

20. Test the build thoroughly using Canoe – WinIdea Setup and make sure all the functionalities like DID services and DTC storage are working properly. Also test the delta internal DIDs.

21. Create a ticket for FEE generation if the NVM block sizes had changed with respect to the map file. Reference: https://jiraext.deltaww.com/browse/PIPB-5489